

CONCERNING TWO OF GUÉRIN-MENEVILLE'S  
TYPES IN THE NATIONAL MUSEUM OF  
PARIS (HEMIPTERA: NOTONECTIDÆ  
AND CORIXIDÆ)

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Dr. G. W. Kirkaldy and J. R. de la Torre-Bueno, in their "Catalogue of American Aquatic and Semi-aquatic Hemiptera," 1909, gave the following insufficient reference: "*Notonecta unifasciata* Guérin 1857, le Moniteur, p. (?)," and placed the species as a synonym of *Notonecta indica* L. They omitted *Corixa femorata* Guérin, which was described in the same paper with *Notonecta unifasciata* Guérin.

Champion placed *Corixa femorata* Guérin as a synonym of *Corixa abdominalis* Say, which is an entirely different species. Nevertheless it remained thus submerged until I chanced to find some specimens from Mexico which I thought must be Guérin-Meneville's unknown species and so described and figured them ("Bulletin of the Brooklyn Entomological Society," Vol. 20, No. 1, plate 1, February 1925).

The *Notonecta unifasciata* Guérin reference, as given in the catalogue, I was unable to complete until I found it in Paris upon my first visit to the entomological collections in the National Museum. I came across a box bearing the obscure label "Hautlé." In it was the display prepared by Guérin-Meneville dealing with the use of water bugs as food in Mexico and doubtless used by him in his report before the Academy of Sciences. The box contains the following:

1. Six pieces of reed covered with eggs, two of the pieces a foot or more in length.
2. A spoonful of eggs in a container devised by sealing together with red wax two watch glasses.
3. Two examples of "Calcaires oolithiques"—one from Mexico (gray in color) and one from France (chalk white).
4. Six pinned specimens of *Corixa femorata* Guér. (four males and two females) (two labeled types) and four or five more in glass vial.

5. Ten pinned specimens of *Corixa mercenaria* Say and a vial full besides.

6. Eight pinned *Notonecta unifasciata* Guér. (two marked "type") and a vial containing nineteen specimens (10 ♂ ♂, 6 ♀ ♀, 3 nymphs). The written labels pinned in the box are as follows:

1. "Mémoire sur trois espèces d'insectes hémiptères du groupe des punaises aquatiques, dont les Oeufs servant à faire une Sorte de Pain nommé Hautlé au Mexique. Par M. F. E. Guérin-Meneville."

2. "*Corixa femorata* Guér. *Corixa mercenaria* Say, dont les oeufs constituent une sorte de farine au Mexique."

3. "Ahautlé *Corixa femorata* Guérin-Meneville. Acad. du Sciences. Séance du 23 Nov.<sup>1</sup> 1857. Rev. et Mag. de Zool., 1857, p. 523. L'Illustration, 17 Juillet 1858, p. 47, avec figures dans le texte."

4. "Fragments de Jonce couverts du Oeufs des deux espèces de *Corixa* et de la *Notonecta*."

5. "Farine du Mexique—Oeufs de *Corixa*." (In the watch glass case.)

6. "Calcaires oolithiques. Le gris du Mexique. Le blanc de France."

Thus with the complete references mentioned I was able to examine the articles in the National Library at Paris. Since the publications are not accessible to most of us I am submitting some notes that give information concerning the insects and enable us to complete our bibliographical references.

This report concerning the use of the water bugs as food by the Mexicans must have been deemed a very important one, for it was published almost word for word in several periodicals.

I. "Le Moniteur Universel"—Journal officiel de l'Empire Français, Numéro 330, p. 1298, 26 Novembre 1857. This is the completed reference for the partial one given in Kirkaldy and Bueno's Catalogue relating to *Notonecta unifasciata* Guérin. "Le Moniteur Universel . . ." is a four-page news sheet about sixteen and one-half inches wide and twenty-five inches long, and set up in five rather large columns. The title of the paper in which we are interested is given "Entomologie appliquée Hautlé-Pain D'Insectes."

"Extrait d'un mémoire de M. Guérin-Meneville sur trois espèces d'insectes dont les oeufs servant à faire une sorte de pain nommé Hautlé au Mexique."

<sup>1</sup> Nov. (?) The writing of this abbreviation is difficult to decipher.

Then follows the article which is identical with that appearing in "Revue et Magasin de Zoologie," Tome IX, 1857.

II. "Revue et Magasin de Zoologie," 2nd ser., Tome IX, pp. 522-527, 1857, Paris.

"Séance de 23 Novembre 1847—M. Virlet d'Aoust lit une Note sur des oeufs d'Insectes servant à l'alimentation de l'homme et donnant lieu à la formation d'oolithes dans des calcaires lacustres du Mexique."

In this article is given a review of past literature, the story of the use of the insects and their eggs as food in Mexico, description of the eggs and of *Corixa femorata* and of *Notonecta unifasciata*. Concerning the eggs of the two Corixids, *C. femorata* and *C. mercenaria* Say, he says, "Ils sont de forme ovale, avec un petit bouton au bout et un pédicule à l'autre extrémité, au moyen duquel ils sont fixés sur un petit disque arrondi que la mère colle à la feuille. Parmi ces oeufs, qui sont très rapprochés et quelque-fois fixés l'un sur l'autre, comme on le voit dans une des figures de mes dessins, on en observe d'autres considérablement plus grands, allongés et de forme cylindrique, collés sur le flanc contre ces mêmes feuilles de joncs, et qu'appartiennent à un autre Insecte plus grand, à une véritable Notonecte très voisine des *Notonecta americana* et *variabilis* des auteurs." Then follows what we must accept as his description of *Notonecta unifasciata*: "Cependant, comme elle offre des caractères qui la distinguent de ces espèces, Je la décris et représente comme une espèce nouvelle que j'appellerai *Notonecta unifasciata*, à cause de la large bande transversale blanche du milieu de son corps en dessus."

It is fortunate that the types are preserved. His new *Corixa femorata* receives the following attention. I have not found a fuller description, but illustrations that are unmistakable appear elsewhere. "Les principaux fabricants de cette farine animale du Mexique sont deux espèces du genre *Corise* de Geoffroy, hemiptères de la tribu des Notonectides, dans la famille des Hydrocorises, ou Punaises d'eau, genre qui compte plus de soixante-dix espèces très difficiles à distinguer entre elles par des caractères extérieurs. La première forme une espèce nouvelle, bien distincte par les cuisses antérieures des males qui sont très épaisses, ainsi que par d'autres caractères mentionnés

dans le description détaillée que j'en donne et dans les figures qui accompagnent mon Mémoire. Je lui ai donné le nom de *Corixa femorata*. La Seconde a été décrite d'après des individus achetés au marché de Mexico et publiée en 1831 par Thomas Say, entomologiste américain, sous le nom de *Corixa mercenaria*."

Even without the types the drawings given in the article below would suffice.

III. "L'Illustration," Tome XXXII, Juillet 17, 1858. In this illustrated magazine, on page 47 of the above number, is a small woodcut block of drawings illustrating a dorsal view of a male, front leg of the male, two eggs, one attached to the other, and a piece of *Juncus* with three *Notonecta* eggs and forty-eight *Corixid* eggs, the latter on stalks. These stalked eggs are interesting and correctly drawn, for I compared the drawings with the original material. The stalked eggs remind one of the eggs of *Cymatia*. (See "Bulletin Brooklyn Entomological Society," Vol. 18, No. 1, page 13, 1923.)

The drawings given here are tracings from those published in the above magazine. The article is almost word for word the same as appeared in the "Revue et Magasin de Zoologie."

The title under which the paper appears is "Pain d'Insectes, Nommé Ahautlé au Mexique." Fait avec une farine composé d'oeufs de punaises aquatiques. The



article is signed Guerin-Meneville at the end.

IV. "Annals and Magazine of Natural History," Ser. 3, Vol. 1, pp. 79-80, 1858. This is an English review that mentions the oölites in Mexico and the gathering of Hautlé by the Mexican Indians and is credited to Comptes Rendus, November 23, 1857, p. 865.

V. "Bulletin Soc. Zool. Acclim.," Vol. IV, p. 581, 1857. This is the reference given by Champion in his reference to *C. femorata* Guér., which he made a synonym of *C. abdominalis*

Say. The account is almost identical with the one in the "Revue et Magasin de Zoologie." It lacks, however, the first paragraph and adds two short ones at the end. In one of Doctor Kirkaldy's unpublished notes, which is bound in R 2 of his set of separates which we purchased some years ago, I find his notation: "The November number of the Rev. et Mag. did not appear before Dec. 6th (v. p. 529)." It was Doctor Kirkaldy's opinion that the "Moniteur," November 25, 1857, was the first one to appear.

VI. "Bulletin Soc. Ent. Fr." (3) V. p. CXLVIII-CLI. Here also is a repetition of the story that was certainly preceded by the "Moniteur."

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#### A CATALOGUE OF THE MESOVELIIDÆ

Fascicle II of the General Catalogue of the Hemiptera, which has just come to hand, records the small family Mesoveliidæ. It has been prepared by our old friend Dr. Geza Horvath, who, since the death of Dr. Reuter, has been easily the leading hemipterist of the world. In this catalogue Dr. Horvath enumerates two genera and fourteen species now described. Three of these are Palæarctic, five Indo-Australian, and six American. Of the latter, three have been recorded from north of Mexico. It may be noted that *Mesovelia bisignata* Uhler has come back, and is now considered as distinct from *mulstanti* White.

In the preparation of my catalogue of the Hemiptera of America North of Mexico, I followed Dr. Reuter's classification of 1912 and placed this family just before the Nabidæ, but through the kindness of Dr. Bergroth was able, in a footnote, to indicate its true position in the superfamily Gerroidea, where Dr. Horvath had placed it *in lit.* In his present catalogue he gives it the same position.

Fascicle I of this great catalogue, the Membracidæ by Prof. Funkhauser, was noticed in THE PAN-PACIFIC ENTOMOLOGIST, Vol. IV, page 40, 1927. We understand the preparation of certain other families is well under way. They will be most welcome when they do appear.—E. P. Van Duzee.